

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
24 February 2005 (24.02.2005)

PCT

(10) International Publication Number  
**WO 2005/016170 A2**

(51) International Patent Classification<sup>7</sup>: **A61C 9/00**

(21) International Application Number:  
PCT/EP2004/009100

(22) International Filing Date: 13 August 2004 (13.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
103 37 789.1 14 August 2003 (14.08.2003) DE

(71) Applicant (for all designated States except US): **3M ESPE AG** [DE/DE]; Espe Platz, 82229 Seefeld (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **PEUKER, Marc** [DE/DE]; Brunnenstrasse 2, 86938 Schondorf (DE). **HOHMANN, Arno** [DE/DE]; Johann-Clanze-Strasse 105, 81369 München (DE). **PAUSER, Helmut** [DE/DE]; Metznerwiese 5, 86911 Diessen (DE).

(74) Agent: **VOSSIUS & PARTNER**; Siebertstrasse 4, 81765 München (DE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

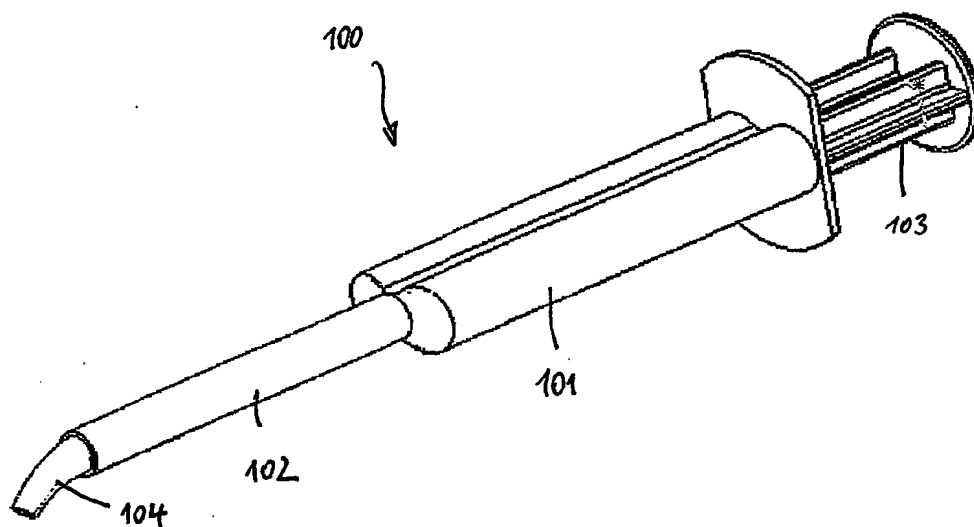
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: UNIT-DOSE SYRINGE FOR A MULTI-COMPONENT MATERIAL



(57) Abstract: The present invention relates to a unit-dose syringe comprising a static mixer for storage, mixing, and application of a multi-component material, preferably dental material. There is provided a unit-dose syringe for a multi-component material comprising a cartridge having a compartment for each component, a static mixer, a mixing tip being integrally connected to the cartridge at the front end of the cartridge, and receiving the static mixer, and a plunger for each compartment of the cartridge, the static mixer comprising closure plugs at its rear end for closing the outlet ends of the compartments. Furthermore, a unit-dose syringe for a multi-component material alternatively comprises a cartridge having a compartment for each component and an integrally formed static mixer, a plunger for each compartment of the cartridge, and a mixing tip connectable to the cartridge and for receiving the static mixer.



---

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*